

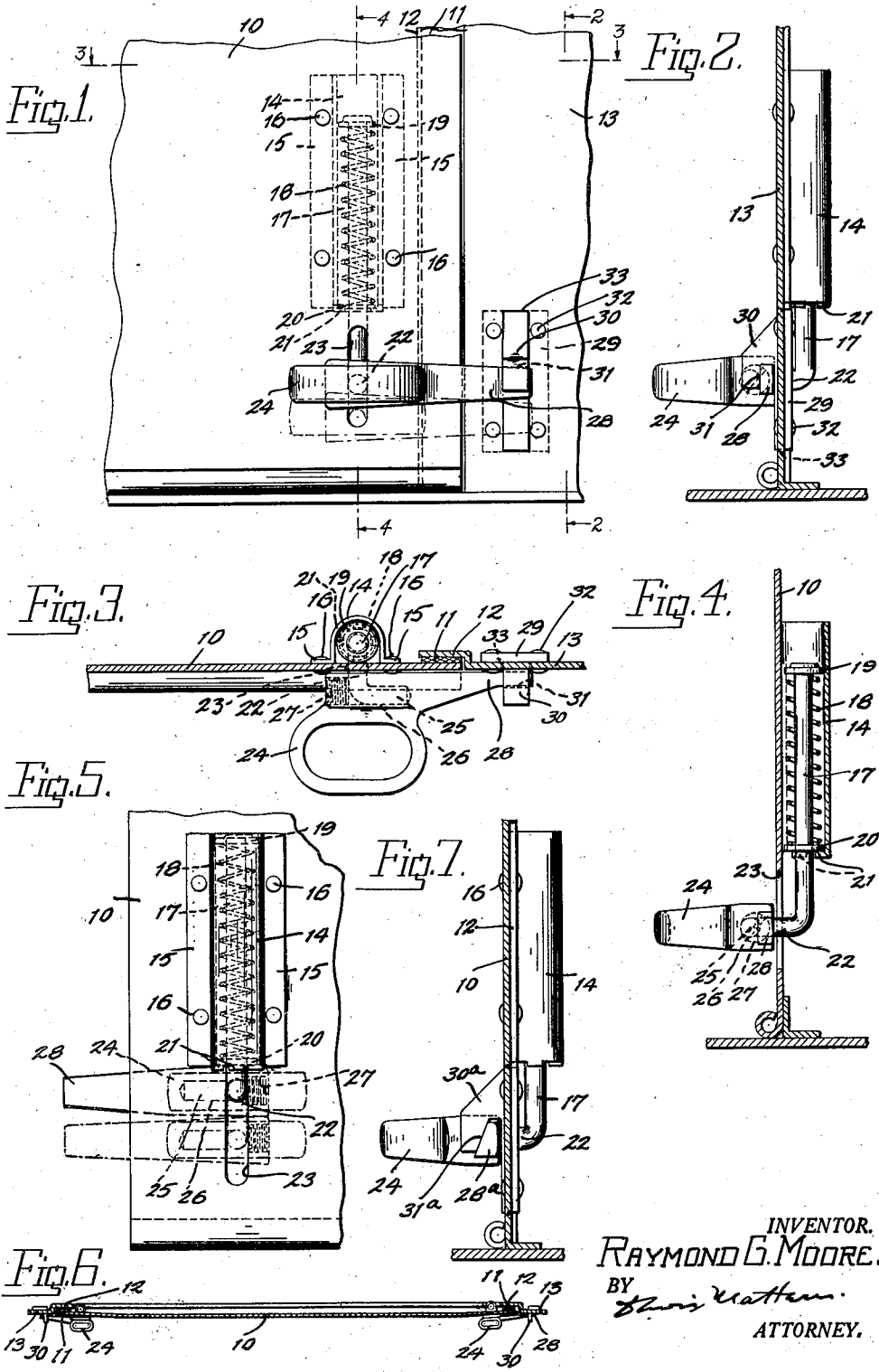
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R. G. MOORE

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HOOD CATCH

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INVENTOR.
RAYMOND G. MOORE.
BY
Erwin Mathew
ATTORNEY.

UNITED STATES PATENT OFFICE

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HOOD CATCH

Raymond G. Moore, Bridgeport, Conn., assignor
to The Bassick Company, Bridgeport, Conn., a
corporation of Connecticut

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The present invention relates to hood catches for securing the hoods of automobiles, and has for an object to provide a hood catch of relatively simple and inexpensive construction, which may be easily and conveniently operated and will effectually hold the hood downwardly and inwardly against looseness and rattling.

A further object is to provide a catch which may be mounted on the hood and the adjacent cowl and radiator structure without interference with the sill, so that the latter may remain clear. Another object is to provide a hood catch in which the handle and catch means will be exteriorly disposed while the tensioning mechanism is interiorly disposed, thus providing a catch which may be easily and positively operated, and which at the same time will present a neat and inconspicuous appearance free from unsightly mechanism, and which lends itself to streamline design, harmonizing with other parts of the automobile structure.

A still further object is to provide a hood catch which will utilize the springiness of the metal of the hood side to exert inward holding pressure.

With the above and other objects in view embodiments of the invention are shown in the accompanying drawing, and these embodiments will be hereinafter more fully described with reference thereto and the invention will be finally pointed out in the claims.

In the drawing:

Fig. 1 is a front elevation of one corner of an automobile hood and the adjacent cowl and still structure, and showing the hood catch, according to the illustrated exemplary embodiment of the invention, attached thereto.

Fig. 2 is a vertical sectional view, taken along the line 2—2 of Fig. 1.

Fig. 3 is a horizontal sectional view, taken along the line 3—3 of Fig. 1 and showing the catch in top plan.

Fig. 4 is a vertical sectional view taken along the line 4—4 of Fig. 1.

Fig. 5 is a rear elevation of the catch, the same being shown in full lines in its inoperative or raised position and in dot-and-dash lines in its operative keeper engaging position.

Fig. 6 is a diagrammatic horizontal sectional view of the hood and the adjacent structure of the radiator and cowl and showing in exaggeration the flexing of the hood in the operative position of the catch.

Fig. 7 is a vertical sectional view showing a modified form of keeper.

Similar reference characters indicate corresponding parts throughout the several figures of the drawing.

Referring to the drawing the hood 10 is adapted to close in the usual manner against the lacings 11—11, provided along the inset marginal edge portions 12—12 of the radiator frame and cowl structure 13—13, and at each end of the hood, and adapted to cooperate with keepers provided on the radiator frame and cowl structures, hood catches according to the illustrated exemplary embodiment of the invention are mounted.

The hood catch comprises a vertically disposed tubular barrel 14 of U-shape on cross-section having outwardly bent attaching flanges 15—15 at each of its vertical sides and which are attached to be secured to the inner side of the hood, as by rivets 16. A plunger rod 17 is mounted within the barrel and has a helical spring 18 surrounding it and disposed between a head washer 19 secured at the upper end of the rod and a guide washer 20 provided at the lower end of the barrel and resting against inwardly extending radial lugs 21 bent from the lower edge of the barrel. The spring exerts an upward pressure on the plunger rod.

The lower end of the plunger rod is bent forwardly at a right angle, as at 22, and extends through a vertically disposed slot 23 in the hood. Its outer end is secured in the base of the operating handle 24, and for this purpose is bent at a right angle as at 25, and is inserted into a right angular hole 26 in the handle, where it is held by a set screw 27 screwed into the end of the handle. To facilitate insertion of the end 25 the hole 26 extends to the end of the handle.

The handle is preferably in the form of a loop and is disposed horizontally, and is provided with a horizontal latch extension 28 projecting beyond the end of the hood.

The keeper comprises a base plate 29 having a hook like keeper rib 30 formed thereon and provided with a catch engaging recess 31 having a vertically disposed outer wall. The plate is preferably secured at the inner side of the cowl or radiator frame 13, as by rivets 32, and the rib 30 projects to the outer side through a slot opening 33 in the cowl or frame.

In operation, the hood is drawn downwardly by downward pressure on the handles 24—24 at each end of the hood, the abutment of the plunger rod portion 22 with the lower end of the slot 23 causing the downward pressure to be firmly transmitted to the hood, so that it can

be effectually pulled down to its full limit with facility. As shown in dot-and-dash lines in Fig. 1 the handle and latch are pressed to a point below the operative position clear of the keeper and the hood is thereupon pressed inwardly against the lacings, and upon release of the handle the spring 18 presses the catch upwardly, engaging the catch end 28 in the keeper recess 31, thus retaining the hood closed and exerting a downward pressure thereon.

The fit of the rod portion 22 in the slot 23 is such that transverse swinging movement of the handle about the vertical axis of the rod 13 is prevented, and the outward spacing of the catch end 28 from the plane of the hood is so designed that the handle must be forceably pressed inwardly to engage the catch with the keeper. The ends of the hood being supported against the lacings 11-11', the inward pressure of the handle causes the hood to be slightly sprung or warped, as indicated diagrammatically in Fig. 6, and being held in this position by engagement of the catch end in the keeper the inherent springiness of the sheet metal of the hood exerts an inward pressure upon the hood thus pressing the hood ends inwardly firmly against the lacings.

To disengage the catch the handle is pressed downwardly and the hood swung outwardly, whereupon the spring 13 draws the handle to its upper inoperative position, indicated in Fig. 5.

In Fig. 7 I have shown a modified form of catch end and keeper, adapted to pull the hood downwardly and exert an inward pressure therein. In this case the hook 30^a has a recess 31^a provided with an inclined outer face, and the catch end 28^a likewise has an inclined outer face, so that as the catch end moves upwardly in the keeper recess, it is cammed inwardly, with the result that the hood is pressed both downwardly and inwardly.

I have illustrated and described preferred and satisfactory embodiments of the invention, but it will be understood that changes may be made therein, within the spirit and scope thereof, as defined in the appended claims.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. Automobile hood fastening means for engaging a keeper disposed upon a fixed part in relation to the end of the hood, comprising a mounting fixture adapted to be mounted upon the hood at one end in longitudinally spaced relation to said keeper, catch means substantially

rigidly supported by said mounting fixture against lateral displacement with respect to said mounting fixture and arranged to have vertical rectilinear movement with respect to said mounting fixture comprising an exterior finger engaging portion and a keeper engaging portion longitudinally spaced from said finger engaging portion and from said mounting fixture, said keeper engaging portion and said finger engaging portion being rigidly connected together, said catch means being movable in generally parallel relation to the normal plane of the hood between a point above and a point below the point of engagement with the keeper, and spring means adapted to press said catch means in keeper engaging position direction.

2. Automobile hood fastening means for engaging a keeper disposed upon a fixed part in relation to the end of the hood and having downwardly and inwardly disposed catch engaging surfaces, the hood in its closed position being limited in its inward movement by engagement of its end portions with a fixed part, and said hood being inherently resilient, comprising a mounting fixture adapted to be mounted upon the hood at one end in longitudinally spaced relation to said keeper and to the point of engagement of said hood with said fixed part, catch means substantially rigidly supported by said mounting fixture against lateral displacement with respect to said mounting fixture and arranged to have vertical rectilinear movement with respect to said mounting fixture, and comprising a keeper engaging portion and an exterior finger engaging portion, said keeper engaging portion and finger engaging portion being rigidly connected together, said catch means being movable in generally parallel relation to the normal plane of the hood between a point above and a point below the point of engagement with the keeper and said keeper engaging portion being normally outwardly of its keeper engaging position, and being further movable by inward pressure in a transverse direction to the normal plane of the hood to engage said keeper, the engagement of said catch with said keeper adapted through said rigid support of said mounting fixture to warp the hood between its ends, whereby the inherent resiliency of the hood sets up pressure to press its end inwardly against said fixed part, said catch means adapted to spring upwardly into engagement with said keeper to hold the hood downwardly.

RAYMOND G. MOORE.